Atomic Size Atomic Size Trends

INCREASING ATOMIC RADIUS

IUS	1 H H- H- H- H- H- H- H- H- H- H- H- H- H																	He He He House
INCREASING ATOMIC RADIUS	3	4	1										5	6	7	8	9	10
	Li	Be											В	C	N	0	F	Ne
	6.941	9.012182											10.811	12,0107	Naugin 14,00674	15,9994	18,9984032	20.1797
	- 11	12	1										13	14	15	16	17	18
	Na 5-d-m 22,999270	Mg 24.3050											AI 26.981538	Si term 28.0855	P 30.973764	S 52,066	CI (Monas 35.4527	Ar 39.948
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
	K Parassian Valents	Ca Calctum 40.078	Sc Scendor 44,955910	Ti Titerium 47,867	V Vinadum 50.9415	Cr Chursian 51,9961	Mn Vargancia 54.938049	Fe	Co Cdub 58.933200	Ni Nosa St.4054	Cu Cupor 63.546	Zn 65.39	Ga Gatum 69,723	Ge Germenen 72.61	As 24.92160	Se Scheroure TR-96	Br tromac 79,904	Kr sopee 83.80
	37	38	39	40	41	42	43	-44	45	46	47	48	49	50	51	52	53	54
	Rb Rdistan RS.4678	Sr Structure 87.62	Y Ynsus 88.90585	Zr Zeoman 91,224	Nb Notion 92,99638	Mo Mo Modelina Modeli	Tc Technolos (96)	Ru 101.07	Rh Rholies 102,96550	Pd Pallabum 106,42	Ag 58nst 107,8682	Calman 112,411	In Indian 114.818	Sn 118,710	Sb (21.760	Te tehetan 127.60	I lodou 126,90447	Xe Xonca 131.29
	55	56	57	72	73	74	75	76	77	.78	79	80	81	82	83	84	85	86
	Cs Cniam 132.90545	Ba 137,327	La Lambaran 138,9055	Hf Holison 178.49	Ta Tartabas 180:9479	W Impan 180.64	Re 186,207	Os 190.23	Ir 192.217	Pt 195,028	Au 644 196.96655	Hg 200.59	T1 Belian 204,3833	Pb tend 207.2	Bi (famul) 208.98038	Po (209)	At (210)	Rn Radeo (222)
	87	88	89	104	105	106	107	108	109	110	111	112	113	114		200	- 27 800	1000
	Fr Finneline (223)	Ra Radium (226)	Ac (227)	Rf Restorier dues (261)	Db Dahman (212)	Sg Subseque (263)	Bh (262)	Hs (268)	Mt Marianium (200)	(201)	(272)	(277)						3

The periodic trend for atomic size is much more important than the group trend

Atomic Size

Group Trend (*left to right*)
Decreases Across Table

More protons with the same EL pull e- more

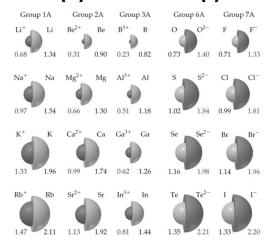
Period Trend (*up and down*) Increases dramatically down the groups on the table

More EL as more total e⁻ total in atom increases size

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Ion Size

Cation (+) and Anion (-) Trends



Ion Size Trend

Cations (+ ion)
Cations smaller than neutral

Losing outer level of atom makes ion smaller

Anion (- ion)
Anions larger than neutral

Adding more e⁻ makes val. e⁻ spread apart making ion bigger overall

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